

# Harvest Trends 2005

August 2006

# MILLS SURVEYED FOR HARVEST TRENDS 2005

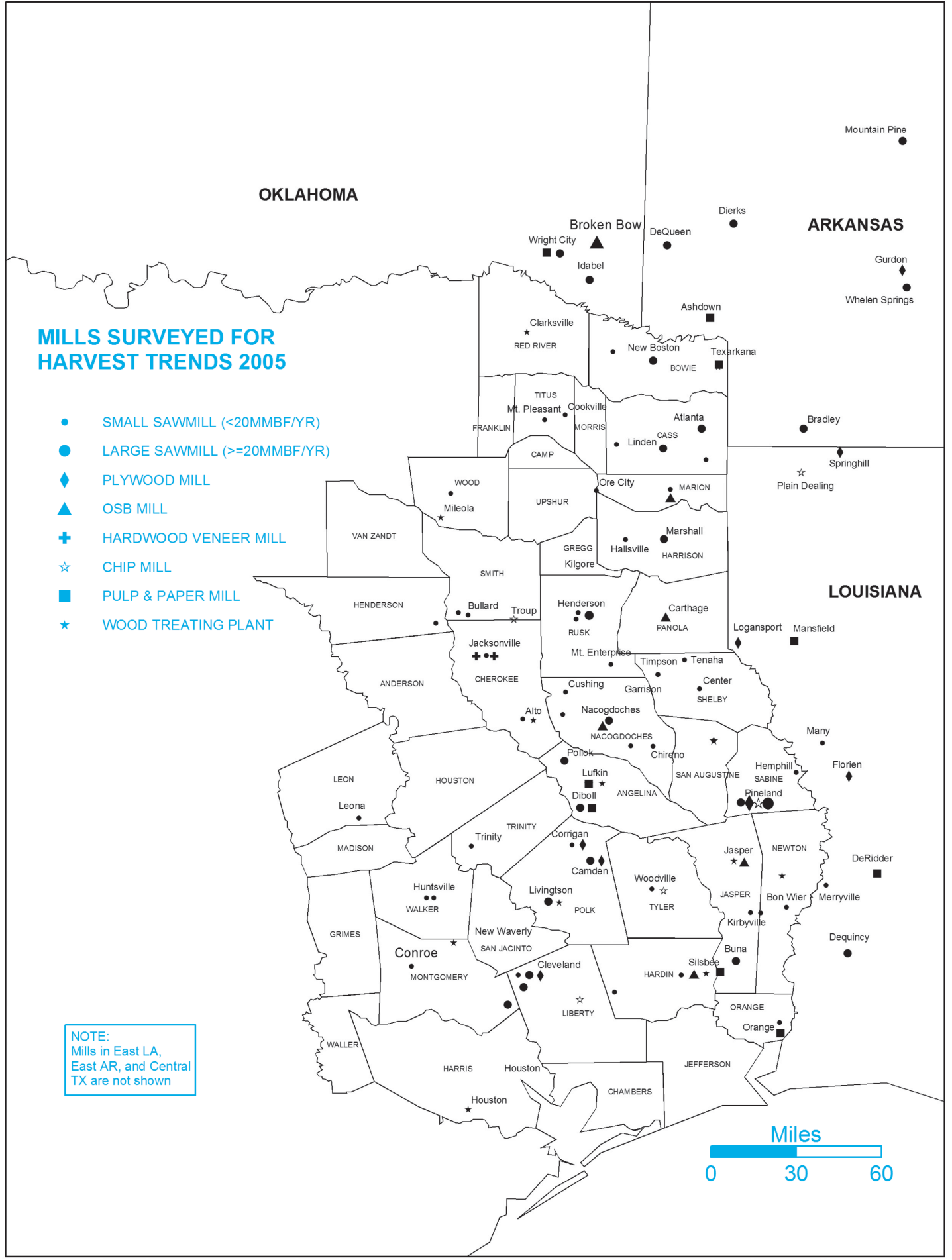
- SMALL SAWMILL (<20MMBF/YR)
- LARGE SAWMILL (>=20MMBF/YR)
- ◆ PLYWOOD MILL
- ▲ OSB MILL
- ⊕ HARDWOOD VENEER MILL
- ☆ CHIP MILL
- PULP & PAPER MILL
- ★ WOOD TREATING PLANT

NOTE:  
Mills in East LA,  
East AR, and Central  
TX are not shown

OKLAHOMA

ARKANSAS

LOUISIANA



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Texas Forest Resource

# Harvest Trends 2005

Weihsuan Xu, Ph.D.  
Principal Economist  
Forest Resource Development and Sustainable Forestry  
College Station, Texas



August 2006

# HIGHLIGHTS

## *Texas Forest Resource Harvest Trends 2005*

### **2005 TIMBER REMOVAL**

- ◆ Total growing stock timber removal was 694.4 million cubic feet in 2005, a increase of 7.7 percent from last year.
  - ◆ Pine removal was up 9.2 percent to 555.3 million cubic feet.
  - ◆ Hardwood removal was up 2.2 percent to 139.1 million cubic feet.
- ◆ Harvest of timber for industrial use in the production of wood products was 701.4 million cubic feet.
  - ◆ 564.3 million cubic feet of pine was harvested for industrial consumption.
  - ◆ 137.2 million cubic feet of hardwood was harvested for industrial consumption.
- ◆ The stumpage value was up 12.8 percent to \$494.6 million, while delivered value was up 7.4 percent to \$839.6 million.
- ◆ Harvest of sawlogs increased 8.6 percent from 2004 to 1,716.9 million board feet.
- ◆ Harvest of wood for veneer and structural panel production increased 7.0 percent to 195.3 million cubic feet from a year ago.
- ◆ Pulpwood harvest increased 7.4 percent to 2.78 million cords.
- ◆ Texas exported more timber than it imported in 2005. The total import from other states was 63 million cubic feet while the total export was 87.9 million cubic feet. The net export was 3.5 percent of the total roundwood production in Texas.

### **PRIMARY FOREST PRODUCTS**

- ◆ Production of primary wood products in 2005 included:
  - ◆ 1.96 billion board feet of lumber, an increase of 2.5 percent from last year.
  - ◆ 3.25 billion square feet of structural panel products, an increase of 13.7 percent from 2004.
  - ◆ 2.51 million tons of paper and paperboard, down 1.9 percent from 2004.

### **MILL AND LOGGING RESIDUES**

- ◆ Total production of mill residue in 2005 was 6.63 million tons.
- ◆ Total production of logging residue in 2005 was 117.2 million cubic feet.

# Harvest Trends 2005

## INTRODUCTION

Forests are vital economic and environmental assets in East Texas. The wood-based industry employed over 95,000 people in 2000 and was one of the top 10 manufacturing sectors in the state. In 23 of 43 East Texas counties, the forest sector was one of the top two largest manufacturing employers. The value of timber ranked fifth in 2004 among Texas' top agricultural commodities, behind beef, cotton, greenhouse and nursery, and broilers<sup>1</sup>.

To gather the most current information on the status of this valuable resource, the Texas Forest Service (TFS) conducts an annual survey of the state's primary forest products industry. This 41st annual report provides information on the volume and value of timber harvested in East Texas during 2005, and reports the production of primary wood products logging residue, and mill residue. Data on forest management activities is also presented.

Information for this report was provided by 117 mills in Texas and 27 mills in surrounding states. The Texas Forest Service appreciates the cooperation of these companies, without which this report would not be possible.

## 2005 ECONOMIC CONDITIONS

The US economy experienced strong growth in 2005 despite of the damages from Hurricanes Katrina and Rita. The real Gross Domestic Product (GDP) growth was 3.2 percent on a year-over-year basis comparing GDP in 2005 as a whole and GDP in 2004 as a whole<sup>2</sup>. Quarterly GDP growth rates (seasonally adjusted) was robust through out most of the year: 3.4 percent for first quarter, 3.3 percent for second quarter, 4.2 percent for third quarter, and 1.8 percent for fourth quarter. The U.S. international trade deficit reached new high in 2005. The Federal Reserve raised the short term discount rate 25 base points eight times during 2005, changing the rate from 2 1/4 percent in the beginning of the year to 4 1/4 percent by the end of the year<sup>3</sup>. Inflation in 2005 was moderate. Mortgage rates climbed steadily but still lag behind the fast rising short term interest rate.

The housing market in the U.S. had another year of strong growth. The total number of residential housing units authorized by building permits increased 3.6 percent to 2.148 million units in 2005 from 2.073 million units in

2004. Single-family building permits increased 3.7 percent, from 1.617 million units in 2004 to 1.676 million units in 2005. Multi-family starts grew at an annual rate of 3.3 percent in 2005. The total number of multi-family starts increased from 456.7 million units in 2004 to 471.8 thousand units in 2005<sup>4</sup>.

Growth in the Texas economy was stronger than the national average in 2005. Real Gross State Product (GSP) was up 4.3 percent to \$845.5 billion (based on 2000 constant dollar) in 2005 from the previous year<sup>5</sup>. The annual growth rate for residential housing building permits in Texas jumped up 10.2 percent in 2005. Total number of building permits in Texas was up from 191.2 thousand units in 2004 to 210.6 thousand units in 2005. Multi-family housing increased 11.6 percent and single-family housing rose 9.8 percent<sup>4</sup>.

The strong housing market and fast growing economy created high demand for solid wood products. Total softwood lumber production in the U.S. in 2005 was 40.7 billion board feet, an increase of 6.4 percent from 38.3 billion board feet in 2004. Of the total softwood lumber production, 47.7 percent was from the U.S. West, 46.4 percent was from the U.S. South, and 5.9 percent was from the rest of the country. The annual softwood lumber production in the three U.S. regions increased 4.1 percent (West), 8.9 percent (South), and 6.4 percent (Other), respectively<sup>6</sup>. The softwood lumber prices in 2005 fell back a little from its high in 2004. The annual average Random Lengths Framing Lumber Composite price decreased 4.2 percent, from \$404 per thousand board feet (mbf) in 2004 to \$387 per mbf in 2005<sup>6</sup>.

The 2005 production of structural panel in the US, including plywood and oriented strand board (OSB), increased 1.3 percent from a year ago. The U.S. produced 29.32 billion square feet (3/8-inch basis) of structural panels in 2005, compared to 28.94 billion square feet in 2004. Production of plywood and OSB changed in opposite directions. Plywood production was down 2.3 percent to 14.33 billion square feet, while OSB production was up 5.0 percent to 14.99 billion board feet. OSB continued to gain market share over plywood because of its lower wood cost and higher manufacturing efficiency. The share of OSB in total panel production in the U.S. increased to 51.1 percent in 2005, up from 49.3 percent in 2004<sup>6</sup>.

Added production capacities eased structural panel prices in 2005 despite strong demand. The average annual

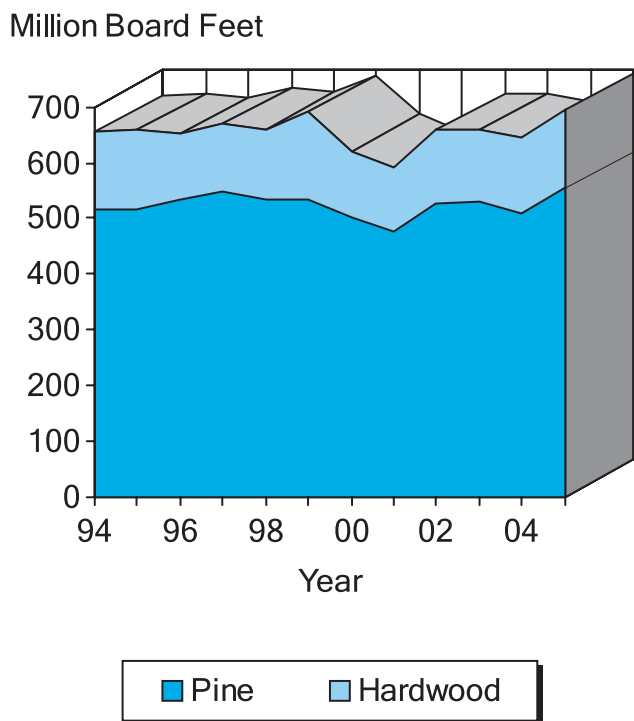


Figure 1. Total Timber Removals, 1994-2005

Random Lengths Structural Panel Composite price was \$408 per thousand square feet (msf) in 2005, which was 11.7 percent lower than 2004, the highest level in recent years<sup>6</sup>.

The total production for the paper and paperboard sector in the U.S. declined slightly in 2005 compared to the previous year. The total production of paper and paperboard went down 0.9 percent from 91.9 million short tons in 2004 to 91.1 million short tons in 2005. Paper production totaled 41.3 million tons in 2005, a decrease of 1.2 percent from 2004. Paperboard production was down 0.4 percent to 49.9 million tons. Market pulp shipment to North America in 2005 was 8.3 million short tons, compared with 8.1 million short tons in 2004<sup>7</sup>.

## STUMPAGE PRICES

According to the *Texas Timber Price Trends* bi-monthly timber market report, the average annual pine sawtimber price rose in 2005 to \$305.58 per mbf, Doyle scale, up 6.7 percent from the 2004 average annual price of \$286.42 per mbf. The average annual mixed hardwood sawtimber prices decreased 13.5 percent from its 2004 level to \$164.16 per mbf in 2005. Pine pulpwood price dropped to \$17.44 per cord from its 2004 price, down 10.7

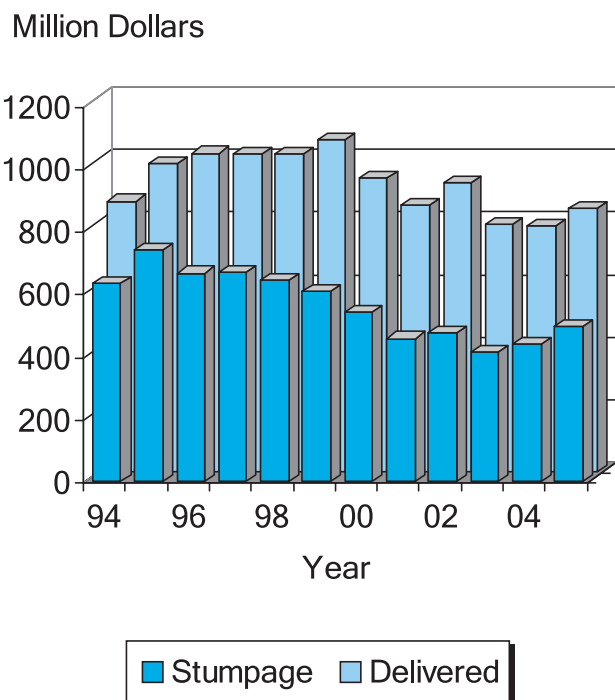


Figure 2. Value of the Timber Harvest, 1994-2005

percent. Mixed hardwood pulpwood prices were up 16.5 percent to \$19.69 per cord in 2005. Table 6 provides historic data on stumpage prices.

## TIMBER REMOVALS

### Growing Stock Removals

Total removals of growing stock in East Texas in 2005, including both pine and hardwood, increased 7.7 percent from the previous year (Figure 1). The total volume of growing stock removed from the 43-county region was 694.4 million cubic feet in 2005, compared to 644.8 million cubic feet in 2004. Included in the total growing stock removals are timber harvested for industrial use and an estimate of logging residue. Growing stock removals in 2005 and the past years were adjusted using the new harvest residue ratios from the updated Texas Wood Utilization Study by the USDA Forest Service.

By species group, growing stock removals in 2005 were comprised of 555.3 million cubic feet of pine and 139.1 million cubic feet of hardwood. Pine removals were up 9.2 percent and hardwood removals were up 2.2 percent from 2004. Figure 3 and Table 14 illustrate the harvest volume by species group by year.

## Industrial Roundwood Harvest

Industrial roundwood harvest in Texas, the portion of the total removals that was subsequently utilized in the manufacture of wood products, totaled 564.3 and 137.2 million cubic feet for pine and hardwood, respectively. The pine industrial roundwood harvest was up 9.0 percent, and the hardwood roundwood harvest was up 2.8 percent from 2004. The combined harvest rose 2.6 percent to 701.4 million cubic feet. Ninety five percent of the industrial roundwood were from growing stock and 5 percent of the industrial roundwood were from non-growing stock in 2005 (Table 13).

Table 1 lists the harvest of pine and hardwood by county for 2005. Top timber producing counties included Polk, Jasper, Cass, Hardin, and Angelina.

Figure 4 illustrates the intensity of timber harvest expressed in cubic feet of harvest per acre of timberland. Chambers, Jasper, Polk, Angelina, and Upshur Counties had the highest relative timber harvesting intensity during 2005.

## Value of Timber Harvest

As Figure 2 illustrates, stumpage value of East Texas timber harvest increased 12.8 percent in 2005 to \$494.6 million. The delivered value was up 9.4 percent to \$781.8 million. Pine timber accounted for 89.2 percent of the total stumpage value. Figure 3 depicts the value of the harvest by product. Table 1 lists the value of the harvest by county. Table 7 lists stumpage and delivered value by product category.

## Sawlogs

Harvest of sawlogs for lumber production increased 8.6 percent to 1.72 billion board feet, which accounted for 39.9 percent of the 2005 total timber harvest. The pine sawlog cut totaled 1.47 billion board feet, up 13 percent, while the hardwood sawlog harvest was down 11.6 percent to 250.7 million board feet. Jasper, Angelina, Tyler, Cass, and Nacogdoches counties were the top producers of sawlogs. Table 2 lists sawlog harvest by county.

## Veneer and Panel Roundwood

Harvest of timber for the production of structural panels, including plywood and OSB and hardwood veneer, was 195.3 million cubic feet in 2005, a 7.0 percent increase from 2004. The timber harvest for structural panels was 27.9 percent of the total timber harvest in 2005. Almost all of the veneer and panel roundwood were pine. Polk, Panola, Jasper, Trinity, and Tyler counties were the top producers of veneer and panel roundwood. Table 3 lists the harvest of veneer and panel roundwood by county.

## Pulpwood

Harvest of timber for pulp and paper products in Texas added 7.4 percent in 2005 over the last year to 2.78 million cords. The roundwood pulpwood harvest accounted for 32.3 percent of the total timber harvest in 2005. Pine pulpwood made up 57.5 percent of the total pulpwood production in 2005. Jasper, Hardin, Cass, Polk, and Newton Counties were the top producers of pulpwood. Table 4 lists the roundwood pulpwood harvest by county.

## Other Roundwood

Other roundwood harvest included posts, poles and pilings that totaled 2.3 million cubic feet in 2005. Table 5 lists harvest of these products by county.

## Import-Export Trends

Texas was a net exporter of timber products from surrounding states in 2005. Net exports of roundwood were 24.9 million cubic feet, or about 3.5 percent of the total industrial wood production in Texas. Exports of roundwood from Texas were 87.9 million cubic feet, while imports totaled 63.0 million cubic feet in 2005. Table 8 details the interstate movement of roundwood.

Texas mills utilized 87.5 percent of the timber harvested in the state in 2005. The remainder was processed mainly by mills in Arkansas, Louisiana, and Oklahoma. Details are listed in Table 8.

## PRODUCTION OF FOREST PRODUCTS

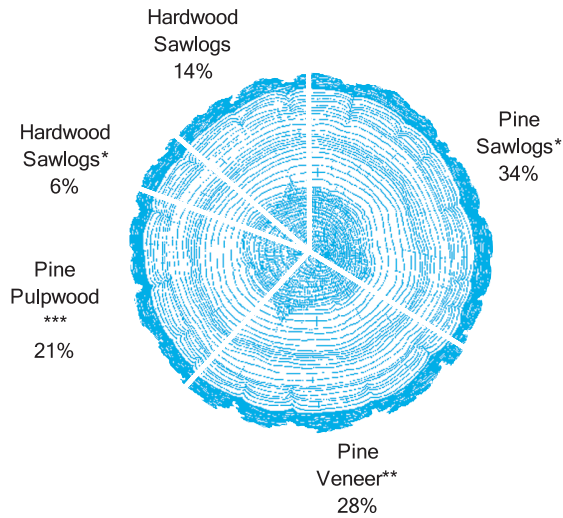
### Lumber

Texas sawmills produced 1.96 billion board feet of lumber in 2005, an increase of 2.5 percent over 2004. Production of pine lumber rose 8.9 percent to 1.73 billion board feet in 2005 and hardwood lumber production dropped 29.1 percent to 230.1 million board feet. Table 9 and Figure 5 present a 10-year trend in lumber production.

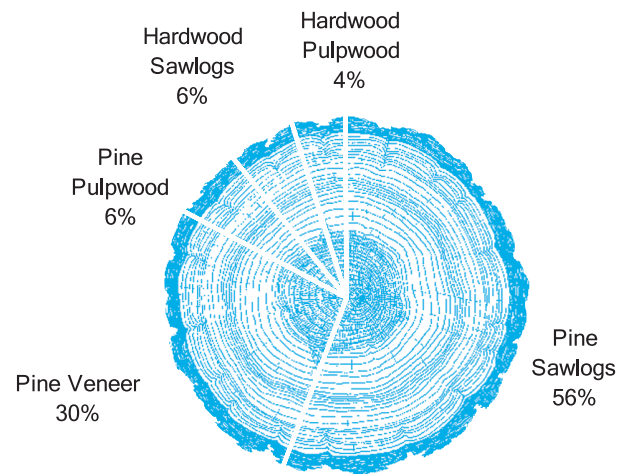
### Structural Panel Products

Production of structural panels, including plywood and OSB, was up 13.7 percent to 3.25 billion square feet (3/8-inch basis) in 2005. Table 9 and Figure 6 show the recent trend in structural panel output.

**Harvest Volume**  
(700.9 Million Cubic Feet)



**Stumpage Value \*\*\*\***  
(\$494.3 Million)



- \* Includes chip-n-saw
- \*\* Includes panel roundwood (pulpwood sized material chipped for panel production)
- \*\*\* Includes pasts, pole and pilings
- \*\*\*\* Products with stumpage value less than 1% of total are not included

Figure 3. Volume and Value of the Timber Harvest, 2005

**Cubic Feet Harvested Per Acre of Timberland**

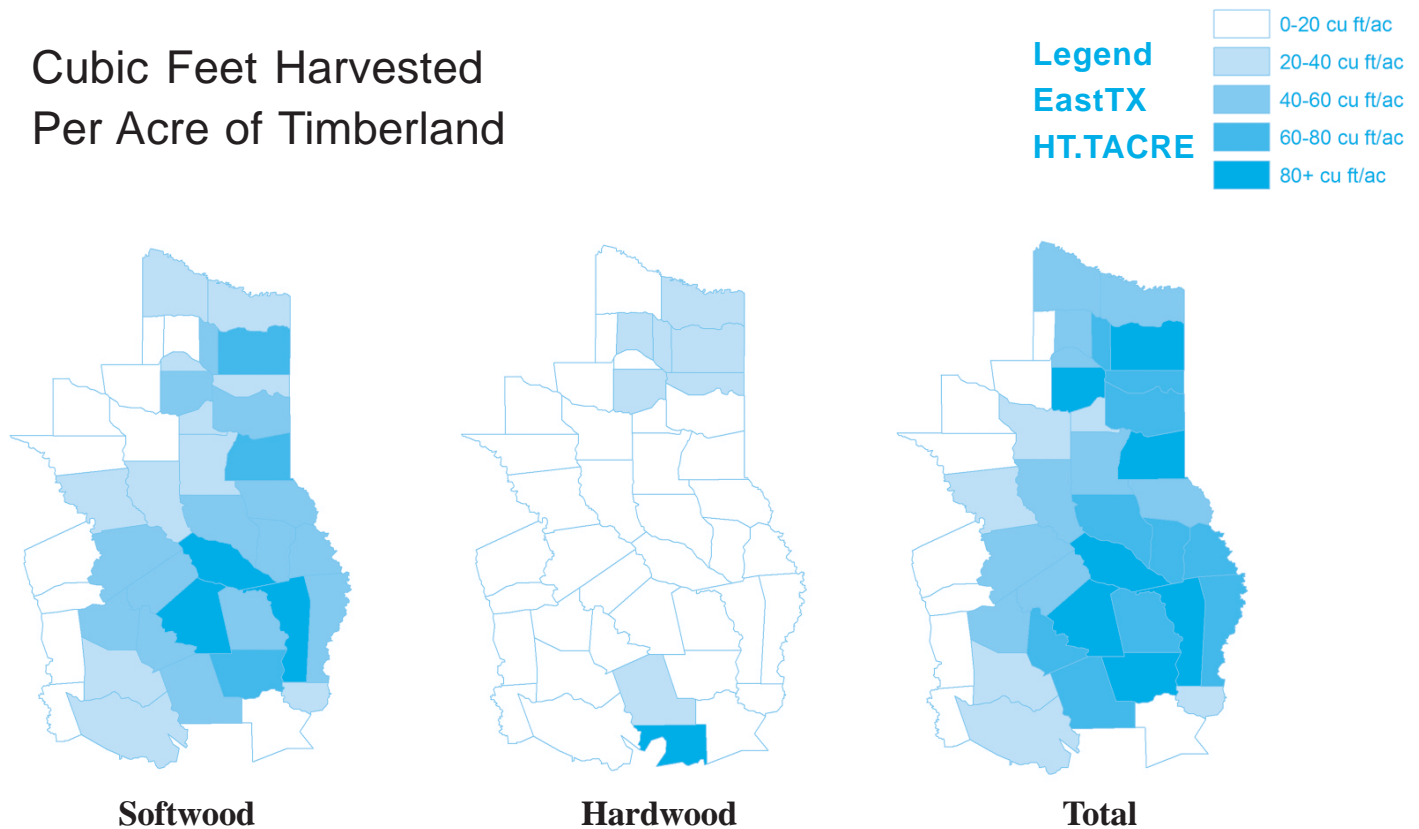


Figure 4. Intensity of Timber Harvest by County, 2005



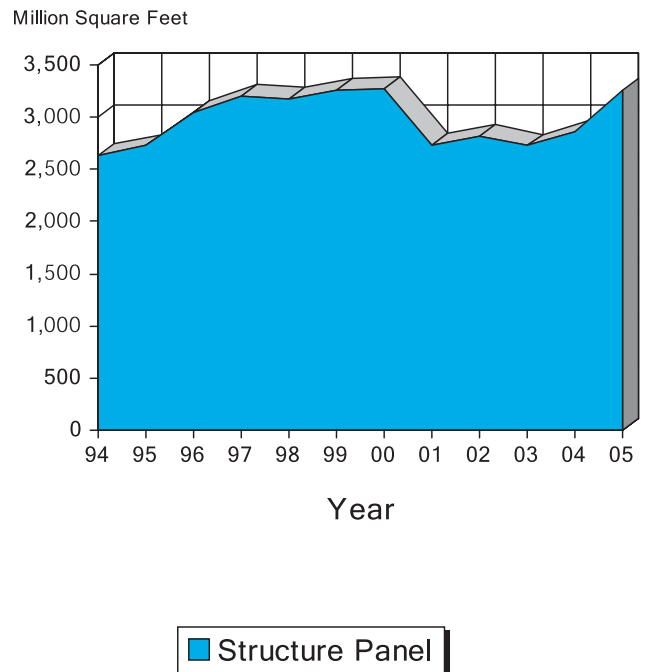
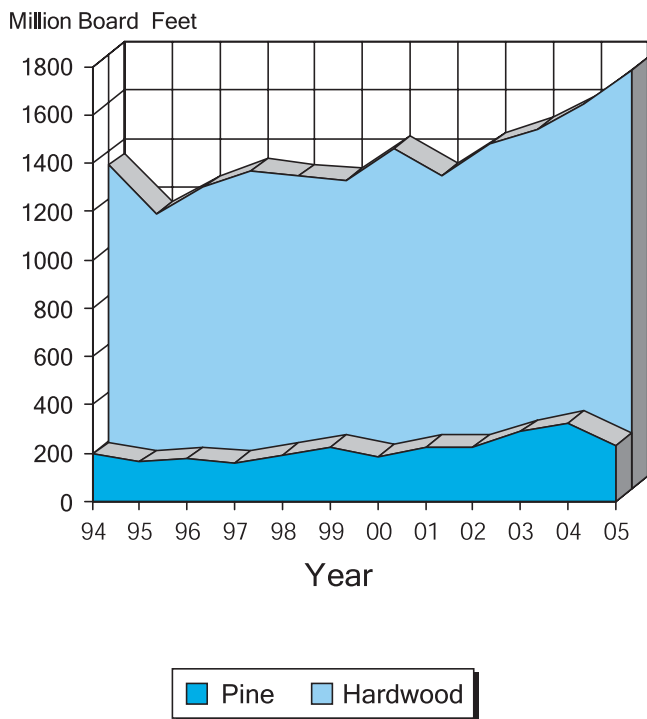


Figure 5. Texas Lumber Production, 1994-2005

Figure 6. Texas Structural Panel Production, 1994-2005

## Paper Products

Production of paperboard totaled 2.51 million tons in 2005, down 1.9 percent from 2004. There was no paper and market pulp production in Texas in 2005. Table 10 and Figure 7 summarize recent trends in paper product output.

## Treated Wood Products

There was a 24.5 percent decrease in the volume of wood processed by Texas wood treaters in 2005 from the previous year. The total volume treated in 2005 was 41.0 million cubic feet. Among major treated products, lumber accounted for 47.4 percent of the total volume, crossties accounted for 9.6 percent, and utility poles and switch ties accounted for 9.6 percent and 8.1 percent, respectively. Table 11 contains treated volume by product for 2004 and 2005.

## Primary Mill Residue

Total mill residue, including chips, sawdust, shavings, and bark in primary mills such as sawmills, panel mills and chip mills in 2005 was 6.63 million short tons, 4.0 percent higher than the 2004 level (Table 12). Eighty four percent of the mill residue was from pine species and 16 percent

was from hardwood species in 2005. Chips accounted for 51.0 percent of mill residue, followed by bark (34.6 percent), sawdust (8.2 percent), and shavings (6.1 percent) (Figure 8).

## Logging Residue

Types of logging residue include stumps, tops, limbs and unutilized cull trees. Total logging residue produced in 2005 was 117.2 million cubic feet. Logging residue comes from both growing stock and non-growing stock trees. In 2005, 22.7 percent of the logging residue was from growing stock trees, and 77.3 percent of the logging residue was from non-growing stock trees. Sixty nine percent of the residue was from pine and 31 percent was from hardwood in 2005 (Table 13, Figure 9).

## REFORESTATION ACCOMPLISHMENTS

Accomplishments in reforestation by funding source and ownership are presented in Table 15. A total of 103,601 acres was planted during the winter 2004/spring 2005 planting season. This was a 8.9 percent decrease from the previous year. Industrial landowners planted 69,712 acres, down 6.5 percent from the previous year. Nonindustrial private forest (NIPF) landowners planted 33,296 acres,

Thousand Tons

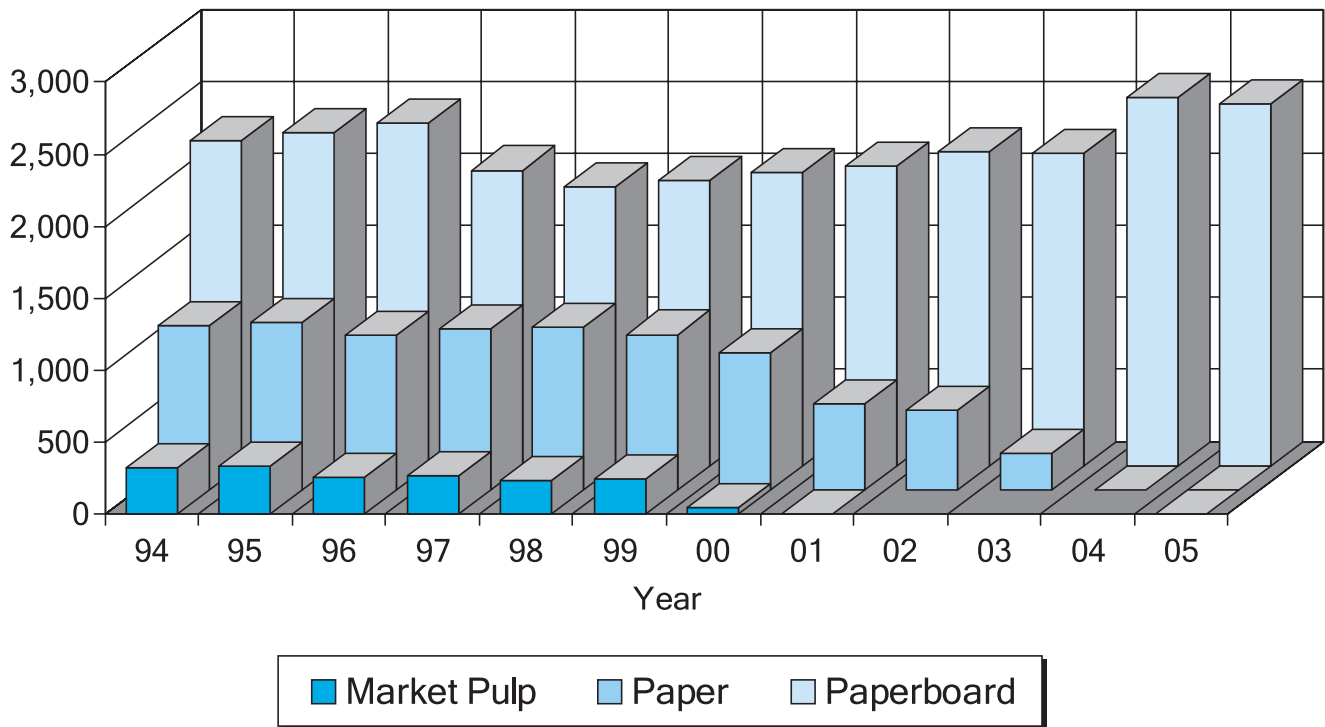
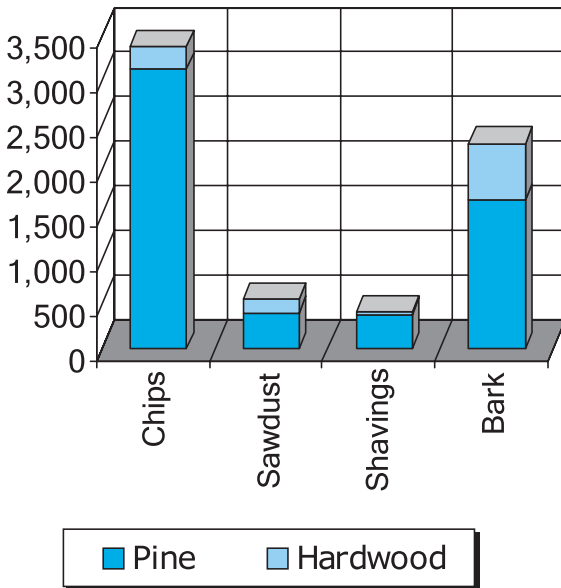


Figure 7. Texas Paper Production, 1994-2005

Thousand Tons



Million Cubic Feet

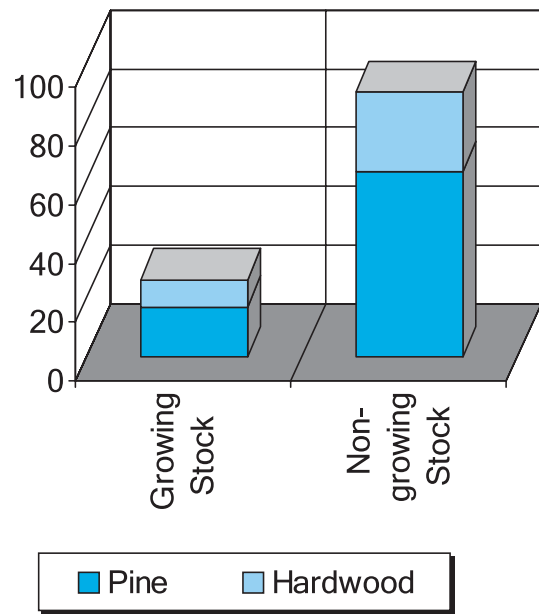
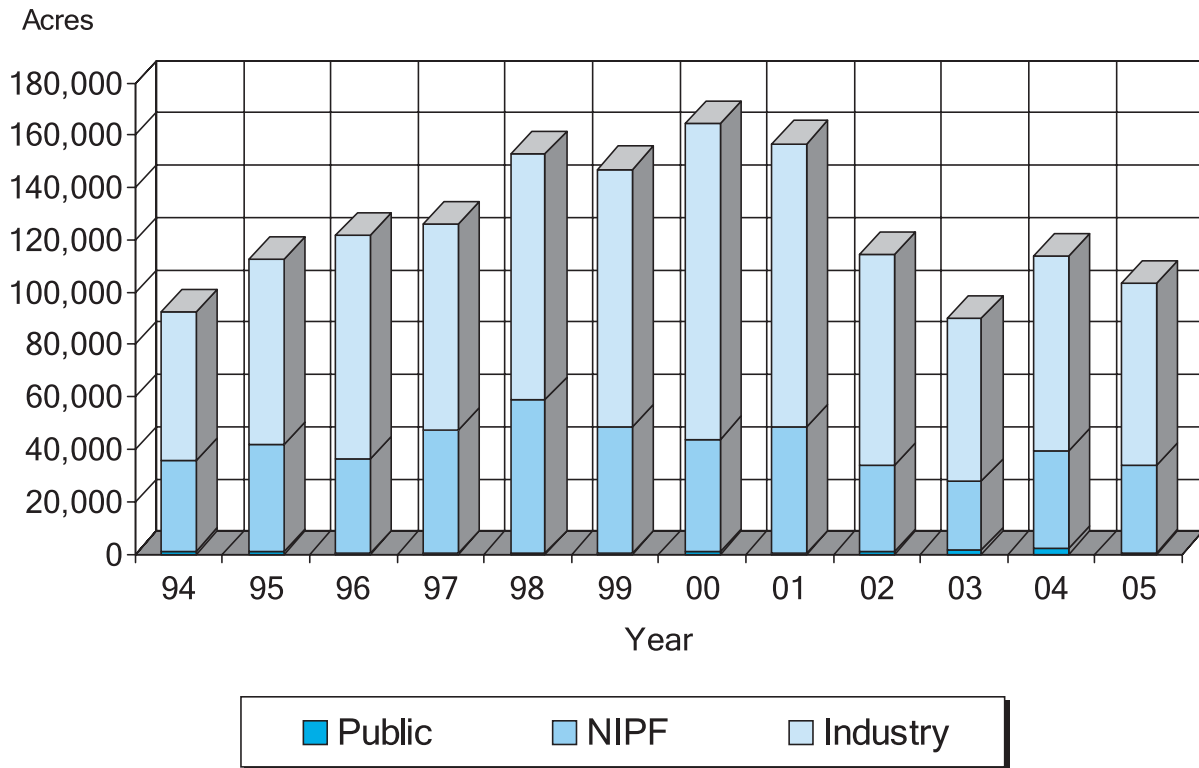


Figure 8. Texas Primary Mill Residue, 2005

Figure 9. Texas Logging Residue, 2005



*Figure 10. Reforestation Acreage by Ownership in Texas, 1994-2005*

down 9.8 percent. Public landowners planted 593 acres in 2005. The NIPF landowners received \$1,385,811 million in cost share assistance for reforestation through federal and industrial cost share programs. Federal programs provided \$1,267,815 million in cost share funds. The Texas Reforestation Foundation provided \$117,997 cost share funding.

## REFERENCES

- <sup>1</sup>Texas Agricultural Statistics 2004 Bulletin (<http://www.nass.usda.gov/tx/mbullpdf.htm>)
- <sup>2</sup><http://www.bea.gov/bea/dn/home/gdp.htm>
- <sup>3</sup><http://www.federalreserve.gov/fomc/default.htm#calendars>
- <sup>4</sup> <http://recenter.tamu.edu/Data/>
- <sup>5</sup> <http://www.window.state.tx.us/m25econ.html>
- <sup>6</sup>Random Lengths, Year Book, 2005
- <sup>7</sup>American Forest and Paper Association (AF & PA)

**Table 1. Total Industrial Timber Harvest Volume and Value by County in Texas, 2005**

County	Volume Harvested			Value of Harvest	
	Pine	Hardwood	Total	Stumpage Value	Delivered Value
	----- cubic feet -----			----- thousand dollars -----	
Anderson	9,521,559	3,576,609	13,098,168	9,698	16,140
Angelina	29,861,187	3,977,390	33,838,577	25,888	43,394
Bowie	8,000,855	6,940,972	14,941,827	9,459	15,295
Camp	1,594,938	612,638	2,207,576	1,693	2,720
Cass	28,577,722	10,594,875	39,172,597	25,860	43,955
Chambers	6,795,423	2,863,052	9,658,475	3,941	8,410
Cherokee	12,723,012	5,067,731	17,790,743	12,251	21,058
Franklin	245,716	197,384	443,100	301	542
Gregg	1,983,376	1,655,022	3,638,398	2,603	4,433
Grimes	2,703,333	71,710	2,775,043	2,568	4,006
Hardin	29,785,502	7,246,909	37,032,411	18,288	36,919
Harris	4,636,431	1,300,993	5,937,424	5,733	8,448
Harrison	21,924,821	6,270,445	28,195,266	20,242	33,795
Henderson	739,290	2,339,949	3,079,239	1,612	2,770
Houston	17,457,525	3,888,380	21,345,905	15,545	26,003
Jasper	47,828,936	4,402,446	52,231,382	30,733	58,607
Jefferson	1,098,201	213,600	1,311,801	1,134	1,768
Leon	959,314	672,750	1,632,064	1,436	2,166
Liberty	16,620,112	8,248,833	24,868,945	16,673	28,170
Madison	220,225	86,596	306,821	223	353
Marion	8,030,992	5,361,883	13,392,875	9,830	15,639
Montgomery	14,361,175	1,156,165	15,517,340	16,724	24,385
Morris	3,497,992	2,171,268	5,669,260	3,888	6,214
Nacogdoches	23,727,126	5,483,115	29,210,241	22,507	37,150
Newton	29,183,081	2,050,645	31,233,726	21,243	38,049
Orange	2,752,114	1,229,889	3,982,003	3,479	5,255
Panola	22,985,778	3,948,781	26,934,559	17,639	31,419
Polk	49,194,971	4,698,749	53,893,720	32,549	60,733
Red River	8,367,214	5,563,394	13,930,608	5,355	11,500
Rusk	13,611,290	2,852,679	16,463,969	13,034	21,587
Sabine	14,214,461	2,096,577	16,311,038	10,804	19,118
San Augustine	13,817,535	4,240,890	18,058,425	12,500	20,979
San Jacinto	16,975,654	1,099,856	18,075,510	19,262	28,275
Shelby	17,007,673	2,003,803	19,011,476	14,587	24,356
Smith	5,044,726	3,050,055	8,094,781	6,239	9,996
Titus	919,791	3,592,018	4,511,809	2,361	3,755
Trinity	17,480,764	1,628,765	19,109,529	12,829	22,918
Tyler	27,891,012	4,245,054	32,136,066	26,635	42,549
Upshur	9,898,404	7,883,131	17,781,535	12,566	19,821
Van Zandt	187,616	243,830	431,446	405	629
Walker	18,259,311	248,996	18,508,307	21,333	30,689
Waller	223,052	5,159	228,211	227	345
Wood	2,364,789	1,469,797	3,834,586	1,906	3,556
Other Counties	993,660	622,250	1,615,910	861	1,706
<b>Total Production</b>	<b>564,267,659</b>	<b>137,175,033</b>	<b>701,442,692</b>	<b>494,644</b>	<b>839,576</b>

**Table 2. Sawlog Harvest by County in Texas, 2005**

County	Pine	Hardwood	Total
----- thousand board feet <sup>1</sup> -----			
Anderson	21,999	11,306	33,305
Angelina	90,046	11,225	101,271
Bowie	32,114	6,193	38,307
Camp	6,130	1,184	7,314
Cass	78,482	11,593	90,075
Chambers	5,585	1,591	7,176
Cherokee	34,406	16,452	50,858
Franklin	488	1,177	1,665
Gregg	6,506	7,789	14,295
Grimes	5,748	35	5,783
Hardin	48,434	9,426	57,860
Harris	11,496	1,895	13,391
Harrison	69,420	10,093	79,513
Henderson	2,002	5,330	7,332
Houston	49,517	5,981	55,498
Jasper	102,477	7,404	109,881
Jefferson	4,832	322	5,154
Leon	5,323	2,040	7,363
Liberty	25,435	17,862	43,297
Madison	681	15	696
Marion	32,560	10,529	43,089
Montgomery	52,119	2,203	54,322
Morris	14,076	1,536	15,612
Nacogdoches	73,538	15,040	88,578
Newton	78,653	6,826	85,479
Orange	12,697	2,292	14,989
Panola	29,559	7,654	37,213
Polk	76,213	4,180	80,393
Red River	7,897	6,414	14,311
Rusk	36,794	12,191	48,985
Sabine	33,587	2,672	36,259
San Augustine	32,962	4,593	37,555
San Jacinto	71,095	1,685	72,780
Shelby	36,826	3,762	40,588
Smith	21,304	8,919	30,223
Titus	5,172	5,103	10,275
Trinity	36,944	3,808	40,752
Tyler	90,126	5,811	95,937
Upshur	40,357	11,356	51,713
Van Zandt	1,088	910	1,998
Walker	75,013	119	75,132
Waller	311	5	316
Wood	4,825	1,293	6,118
Other Counties	1,363	2,879	4,242
<b>Total Production</b>	<b>1,466,200</b>	<b>250,693</b>	<b>1,716,893</b>

<sup>1</sup>International 1/4-inch rule.

**Table 3. Veneer and Panel Roundwood Harvest by County in Texas, 2005**

County	Pine	Hardwood	Total
----- cubic feet -----			
Anderson	4,709,009	91,223	4,800,232
Angelina	8,692,141	9,350	8,701,491
Bowie	1,420,614	0	1,420,614
Camp	599,477	0	599,477
Cass	6,502,325	0	6,502,325
Chambers	906,694	0	906,694
Cherokee	5,204,663	47,435	5,252,098
Franklin	166,611	0	166,611
Gregg	851,396	0	851,396
Grimes	1,598,081	0	1,598,081
Hardin	6,032,642	0	6,032,642
Harris	2,385,913	0	2,385,913
Harrison	7,775,458	0	7,775,458
Henderson	296,832	91,223	388,055
Houston	7,485,533	0	7,485,533
Jasper	10,258,116	9,350	10,267,466
Jefferson	99,231	0	99,231
Leon	95,478	0	95,478
Liberty	6,102,942	0	6,102,942
Madison	107,971	0	107,971
Marion	1,662,677	0	1,662,677
Montgomery	5,424,386	0	5,424,386
Morris	929,364	0	929,364
Nacogdoches	7,295,734	100,573	7,396,307
Newton	5,068,933	0	5,068,933
Orange	312,256	0	312,256
Panola	13,609,371	0	13,609,371
Polk	25,162,426	0	25,162,426
Red River	5,683,005	0	5,683,005
Rusk	7,207,866	0	7,207,866
Sabine	3,455,871	0	3,455,871
San Augustine	4,256,662	0	4,256,662
San Jacinto	5,018,080	0	5,018,080
Shelby	8,333,595	5,473	8,339,068
Smith	631,260	45,611	676,871
Titus	73,790	0	73,790
Trinity	9,977,939	0	9,977,939
Tyler	9,088,039	1,824	9,089,863
Upshur	2,681,301	0	2,681,301
Van Zandt	10,279	91,223	101,502
Walker	5,934,648	0	5,934,648
Waller	142,184	0	142,184
Wood	1,434,669	0	1,434,669
Other Counties	87,065	0	87,065
<b>Total Production</b>	<b>194,772,527</b>	<b>493,285</b>	<b>195,265,812</b>

**Table 4. Pulpwood Roundwood Harvest by County in Texas, 2005**

County	Pine	Hardwood	Total
	----- cords -----		
Anderson	15,348	19,867	35,215
Angelina	78,771	26,070	104,841
Bowie	16,730	73,780	90,510
Camp	22	5,176	5,198
Cass	113,473	108,134	221,607
Chambers	61,525	32,453	93,978
Cherokee	20,892	28,266	49,158
Franklin	0	0	0
Gregg	955	4,360	5,315
Grimes	2,142	823	2,965
Hardin	196,322	70,827	267,149
Harris	4,778	12,290	17,068
Harrison	35,218	57,223	92,441
Henderson	1,456	16,936	18,392
Houston	24,016	36,067	60,083
Jasper	255,122	39,393	294,515
Jefferson	2,423	1,995	4,418
Leon	12	4,133	4,145
Liberty	78,942	65,667	144,609
Madison	23	1,051	1,074
Marion	13,301	44,952	58,253
Montgomery	6,028	9,834	15,862
Morris	3,542	23,921	27,463
Nacogdoches	54,456	35,754	90,210
Newton	136,301	11,324	147,625
Orange	4,712	10,569	15,281
Panola	56,522	33,315	89,837
Polk	144,181	49,972	194,153
Red River	16,855	56,097	72,952
Rusk	5,421	10,103	15,524
Sabine	65,608	20,606	86,214
San Augustine	50,851	43,383	94,234
San Jacinto	5,346	10,216	15,562
Shelby	32,411	17,093	49,504
Smith	11,853	18,859	30,712
Titus	94	34,203	34,297
Trinity	18,694	12,377	31,071
Tyler	50,538	40,859	91,397
Upshur	8,336	74,734	83,070
Van Zandt	12	0	12
Walker	2,037	2,863	4,900
Waller	376	54	430
Wood	1,827	15,662	17,489
Other Counties	1,255	1,743	2,998
<b>Total Production</b>	<b>1,598,727</b>	<b>1,183,004</b>	<b>2,781,731</b>

**Table 5. Other Roundwood Harvest by County in Texas, 2005<sup>1</sup>**

County	Pine	Hardwood	Total
----- cubic feet -----			
Anderson	3,337	0	3,337
Angelina	192,231	0	192,231
Bowie	19,440	0	19,440
Camp	0	0	0
Cass	162,324	0	162,324
Chambers	0	0	0
Cherokee	248,899	0	248,899
Franklin	0	0	0
Gregg	0	0	0
Grimes	0	0	0
Hardin	0	0	0
Harris	0	0	0
Harrison	43,740	0	43,740
Henderson	0	0	0
Houston	0	0	0
Jasper	294,868	0	294,868
Jefferson	19,440	0	19,440
Leon	0	0	0
Liberty	0	0	0
Madison	0	0	0
Marion	12,960	0	12,960
Montgomery	0	0	0
Morris	0	0	0
Nacogdoches	100,000	0	100,000
Newton	324,338	0	324,338
Orange	0	0	0
Panola	6,707	0	6,707
Polk	0	0	0
Red River	38,880	0	38,880
Rusk	0	0	0
Sabine	0	0	0
San Augustine	98,881	0	98,881
San Jacinto	0	0	0
Shelby	79,329	0	79,329
Smith	0	0	0
Titus	0	0	0
Trinity	0	0	0
Tyler	100,000	0	100,000
Upshur	0	0	0
Van Zandt	0	0	0
Walker	0	0	0
Waller	0	0	0
Wood	0	0	0
Other Counties	583,999	0	583,999
<b>Total Production</b>	<b>2,329,373</b>	<b>0</b>	<b>2,329,373</b>

<sup>1</sup> Including posts, poles and piling.



**Table 6. Timber Stumpage Price in East Texas by Product, 1995-2005**

Year	Sawtimber/Veneer		Pulpwood		Pine Chip-N-Saw	Pine Poles
	Pine	Mixed Hardwood	Pine	Mixed Hardwood		
	--- \$/MBF-Doyle ---		--- \$/cord ---		\$/cord	\$/ton
1995	438.42	105.17	27.26	28.65	63.15	65.72
1996	395.46	88.28	25.25	10.78	59.18	77.33
1997	441.75	132.20	33.22	11.71	73.39	96.36
1998	414.51	138.75	37.01	14.41	76.40	72.26
1999	382.86	139.44	28.95	12.24	68.44	62.25
2000	376.57	120.88	19.20	7.97	57.69	54.92
2001	325.14	120.32	12.94	15.11	42.06	55.81
2002	334.86	156.97	12.33	15.67	41.92	66.63
2003	289.30	157.81	14.90	15.85	41.90	68.44
2004	286.42	189.73	19.52	16.90	43.74	77.00
2005	305.58	164.16	17.44	19.69	47.99	77.38

SOURCE: *Texas Timber Price Trends* bi-monthly market report, with pine pole price from *Timber Mart South*.

**Table 7. Value of the East Texas Timber Harvest, 2005**

Product	Unit	Stumpage		Delivered	
		Price	Value	Price <sup>2</sup>	Value
<b>PINE</b>		\$/unit	million \$	\$/unit	million \$
Sawlogs/Chip-n-Saw	m bd.ft. <sup>3</sup>	—	274.0	—	395.1
Sawlogs	203.72	252.0	285.55	353.2	
Chip-n-Saw		95.98	22.0	182.49	41.8
Veneer/Panel Roundwood	m cu.ft.	—	135.8	—	242.6
Veneer Logs	m cu.ft.	1,260.00	*	1,760.00	*
Small Roundwood	m cu.ft.	220.00	*	810.00	*
Pulpwood	cords	17.44	27.9	65.57	104.8
Others	m cu.ft.	—	3.1	—	4.4
All pine products			440.7		746.9
<b>HARDWOOD</b>					
Sawlogs	m bd.ft. <sup>3</sup>	120.71	30.3	209.68	52.6
Veneer/Panel Roundwood	m cu.ft.	—	0.4	—	0.6
Veneer Logs	m cu.ft.	720.00	0.4	1,250.00	0.6
Panel Roundwood	m cu.ft.	810.00	0.0	420.00	0.0
Pulpwood	cords	19.69	23.3	33.40	39.5
All hardwood products			53.9		92.7
All products			494.6		839.6

<sup>1</sup>Average annual statewide prices as published in *Texas Timber Price Trends*, Texas Forest Service.

<sup>2</sup>Average annual statewide prices, obtained by adding the difference between the standing timber prices and the delivered prices published in *Timber Mart South* to the stumpage prices published in *Texas Timber Price Trends*, Texas Forest Service.

<sup>3</sup>International 1/4-inch rule.

\* Data suppressed to avoid disclosure of individual company information.

**Table 8. Interstate Movement of Roundwood by Species Group and Product in Texas, 2005**

Product	Units	Imports	Produced & Utilized in State	Exports	Texas Mill Receipts	Texas Roundwood Production
<b>PINE</b>						
Sawlogs	m bd.ft. <sup>1</sup>	91,270	1,370,435	95,765	1,461,705	1,466,200
Veneer/Panel Roundwood	m cu.ft.	6,437	164,218	30,554	170,656	194,773
Pulpwood	ords	272,699	1,215,228	383,499	1,487,927	1,598,727
Others	m cu.ft.	1,099	2,104	226	3,202	2,329
All Pine Products	m cu.ft.	44,419	486,901	77,366	531,320	564,268
<b>HARDWOOD</b>						
Sawlogs	m bd.ft. <sup>1</sup>	8,935	250,042	651	258,977	250,693
Veneer/Panel Roundwood	m cu.ft.	328	493	0	821	493
Pulpwood	ords	209,860	1,052,839	130,165	1,262,699	1,183,004
All Hardwood Products	m cu.ft.	18,615	126,653	10,522	145,267	137,175
<b>TOTAL</b>						
Sawlogs	m bd.ft. <sup>1</sup>	100,205	1,620,477	96,416	1,720,682	1,716,893
Veneer/Panel Roundwood	m cu.ft.	6,765	164,711	30,554	171,476	195,266
Pulpwood	ords	482,559	2,268,067	513,664	2,750,626	2,781,731
Posts, Poles, Pilings	m cu.ft.	1,099	2,104	226	3,202	2,329
All Products	m cu.ft.	63,034	613,554	87,889	676,588	701,443

<sup>1</sup>International ¼-inch rule.

**Table 9. Texas Industrial Roundwood Products, 1995-2005**

Year	Lumber			Structural Panel
	Pine	Hardwood	Total	
	m. bd. ft.			m. sq. ft.
1995	1,139,462	159,831	1,299,293	2,721,487
1996	1,248,627	175,570	1,424,196	3,042,736
1997	1,316,762	160,553	1,477,315	3,200,317
1998	1,293,432	191,165	1,484,597	3,169,713
1999	1,279,487	225,570	1,505,057	3,260,055
2000	1,410,999	184,172	1,595,171	3,265,644
2001	1,293,823	213,795	1,507,618	2,732,940
2002	1,425,613	223,932	1,649,544	2,818,356
2003	1,490,311	287,062	1,777,373	2,723,225
2004	1,591,109	324,663	1,915,772	2,859,012
2005	1,733,314	230,090	1,963,403	3,249,558

**Table 10. Texas Pulp, Paper, and Paperboard Production, 1995-2005**

Year	Paper Products			Market Pulp
	Paper	Paperboard <sup>1</sup>	Total	
	tons			
1995	1,159,677	2,317,212	3,476,889	335,504
1996	1,071,015	2,376,486	3,447,501	255,141
1997	1,116,018	2,052,153	3,168,171	270,235
1998	1,126,648	1,933,906	2,925,856	230,155
1999	1,079,397	1,979,592	3,058,989	242,113
2000	955,117	2,037,148	2,992,265	48,413
2001	599,902	2,083,326	2,683,228	0
2002	551,367	2,179,423	2,730,790	0
2003	255,462	2,170,185	2,425,647	0
2004	0	2,560,480	2,560,480	0
2005	0	2,512,262	2,512,262	0

<sup>1</sup>Includes fiberboard and miscellaneous products.

**Table 11. Products Treated by Texas Wood Preserving Plants, 2004-2005**

Product	Volume by Specific Unit			Volume by Cubic Feet	
	Unit of Measure	2004	2005	2004	2005
Utility poles	number	201,553	196,821	3,394,254	3,314,565
Constr. poles	number	7,703	4,810	23,108	14,430
Piling	m lin.ft.	40,051	40,051	19,476	19,476
Fence posts	number	1,448,599	2,706,914	1,275,277	2,383,037
Crossties	number	3,110,481	3,202,656	11,481,070	11,821,296
Switch ties	m bd.ft.	39,189	39,574	3,894,041	3,932,297
Cross arms	number	0	0	0	0
Lumber	m bd.ft.	392,568	224,372	34,016,204	19,441,959
Plywood/OSB	m sq.ft.	7,707	3,574	240,854	111,698
Other	cu.ft.	0	0	0	0
<b>Total</b>	cu.ft.	—	—	54,344,284	41,038,757

**Table 12. Texas Primary Mill Residue, 2005<sup>1</sup>**

Residue Type	Pine	Hardwood	Total
————— tons —————			
Chips <sup>2</sup>	3,133,752	250,798	3,384,550
Sawdust	398,662	144,956	543,619
Shavings	381,329	25,310	406,639
Bark <sup>3</sup>	1,665,196	629,934	2,295,131
<b>Total</b>	<b>5,578,940</b>	<b>1,050,998</b>	<b>6,629,938</b>

<sup>1</sup> Primary mills include sawmills, structural panel mills, and chip mills.

<sup>2</sup> Does not include chips produced in chip mills.

<sup>3</sup> Includes bark from sawmills, panel mills, and chip mills.

**Table 13. Industrial Roundwood and Logging Residue Removal by Product in East Texas, 2005**

Product	Industrial Roundwood			Residue			Total Volume		
	Pine	Hardwood	Total	Pine	Hardwood	Total	Pine	Hardwood	Total
Growing Stock	—— million cubic feet ——								
Sawtimber	322.0	41.6	363.6	15.3	5.3	20.6	337.3	47.0	384.3
Poletimber	216.0	88.2	304.2	2.0	3.9	5.9	218.0	92.1	310.1
Sub-total	538.0	129.9	667.8	17.3	9.3	26.6	555.3	139.1	694.4
Non-growing Stock	—— million cubic feet ——								
Sawtimber	6.1	0.9	7.0	36.8	9.1	45.9	42.9	10.0	52.9
Poletimber	20.2	6.4	7.0	26.5	18.2	44.8	46.7	24.7	71.4
Sub-total	26.3	7.3	33.6	63.3	27.3	90.6	89.6	34.6	124.3
All	—— million cubic feet ——								
Sawtimber	328.1	42.5	370.6	52.1	14.5	66.5	380.2	57.0	437.2
Poletimber	236.2	94.6	330.8	28.5	22.2	50.7	264.7	116.8	381.5
Total	564.3	137.2	701.4	80.6	36.6	117.2	644.9	173.8	818.6

**Note:**

Sawtimber includes sawlog, chip-n-saw, veneer log, and pole; poletimber include pulpwood, panel roundwood, post, and piling. See documents from the Forest Inventory and Analysis (FIA) Program for definition of growing stock. The separation of industrial roundwood harvest by source was based wood utilization rates from Texas 2003 Wood Utilization Study.

**Table 14. Removals of Industrial Roundwood and Growing Stock in East Texas, 1992-2005**

Year	Pine		Hardwood		All	
	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock	Industrial Roundwood	Growing Stock
— million cubic feet —						
1992	496.6	488.8	111.4	112.8	608.0	601.5
1993	512.1	504.0	121.7	123.2	633.8	627.2
1994	522.3	514.1	139.6	141.3	661.9	655.3
1995	523.5	515.3	143.1	144.8	666.6	660.1
1996	543.5	535.0	116.5	117.9	660.0	652.9
1997	557.5	548.7	118.4	119.8	675.9	668.5
1998	542.4	532.0	127.9	129.0	670.3	661.0
1999	541.4	533.7	157.9	158.1	699.3	691.8
2000	508.9	502.9	116.7	118.1	625.6	620.9
2001	488.5	476.6	111.6	113.8	600.0	590.4
2002	537.0	527.3	130.6	131.9	667.6	659.2
2003	542.1	530.2	126.1	129.1	668.3	659.3
2004	517.7	508.6	133.5	136.2	651.1	644.8
2005	564.3	555.3	137.2	139.1	701.4	694.4

Note:

Total industrial roundwood harvest includes harvest from both growing stock and non-growing stock. The growing stock removal was calculated using wood utilization rates from Texas 2003 Wood utilization study.

**Table 15. Tree Planting by Ownership and Funding Source in Texas, 1995-2005**

Year <sup>1</sup>	Nonindustrial Private										Industry <sup>4</sup>	Public	Total
	Federal Cost Share Programs <sup>2</sup>		Texas Reforestation Foundation (TRF)		All Cost Share Programs		Non-Cost Share <sup>3</sup>		Total Acres				
	Acres	Cost Share \$	Acres	Cost Share \$	Acres	Cost Share \$	Acres	Cost Share \$	Acres	Cost Share \$			
1995	17,414	911,500	10,108	464,645	27,522	1,376,145	13,318		40,840		70,731	974	112,545
1996	17,414	866,500	10,108	441,370	27,522	1,307,870	8,391		35,913		85,680	358	121,951
1997	9,254	409,272	13,041	485,242	22,295	894,514	24,715		47,010		78,730	496	126,236
1998	13,371	347,693	13,272	500,919	26,643	848,612	31,951		58,594		93,991	363	152,948
1999	11,998	262,590	11,628	441,787	23,626	704,377	24,732		48,358		98,449	282	147,089
2000	11,496	489,165	5,401	270,451	16,897	694,103	26,284		43,181		120,523	725	164,430
2001	15,818	602,700	6,325	315,030	22,143	917,730	26,295		48,438		108,254	183	156,875
2002	10,772	581,833	5,649	348,273	16,421	930,106	16,743		33,164		80,388	840	114,392
2003	4,938	907,098	3,763	238,903	8,701	1,146,001	17,657		26,358		62,557	1,278	90,193
2004	10,040	945,528	2,091	123,282	12,131	1,068,810	24,765		36,896		74,542	2,248	113,686
2005	11,713	1,267,815	1,061	117,997	12,774	1,385,811	20,522		33,296		69,712	593	103,601

<sup>1</sup> Federal fiscal year. For example, fiscal year 1995 begins on October 1, 1994 and ends on September 30, 1995.

<sup>2</sup> Includes Forestry Incentives Program (FIP), Stewardship Incentives Program (SIP), Environmental Quality Incentives Program (EQIP), Conservation Reserve Program (CRP), and Forest Land Enhancement Program (FLEP) accomplishments.

Federal funding also includes the Ice Storm Recovery Program in 2002 - 2004.

<sup>3</sup> Non-cost share acres include only NIPF acres planted with TFS assistance.

<sup>4</sup> Acres for industry tree planting includes acres planted by TIMOs.

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